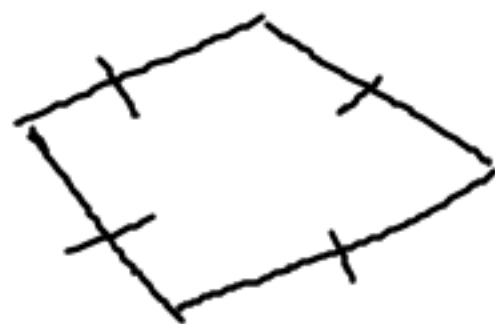
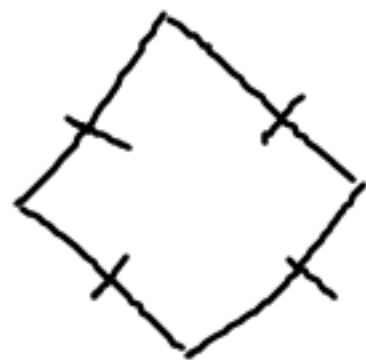


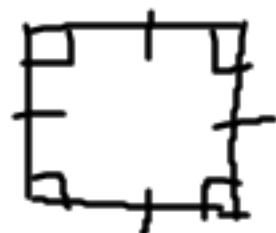
Rhombus: a parallelogram  
with 4  $\cong$  sides.



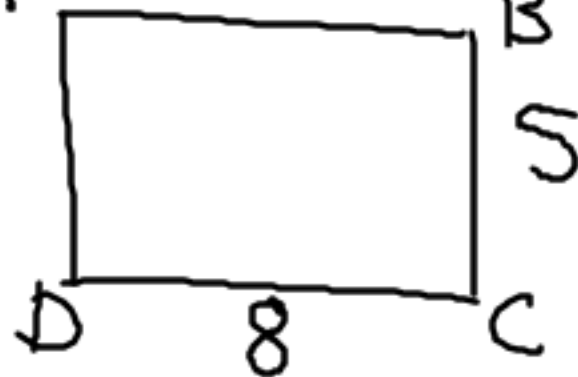
Rectangle: a parallelogram  
with 4 right  $\angle$ 's



Square: a parallelogram with  
4  $\cong$  sides and 4 right  $\angle$ s.



Ex.  $ABCD$  is a rectangle



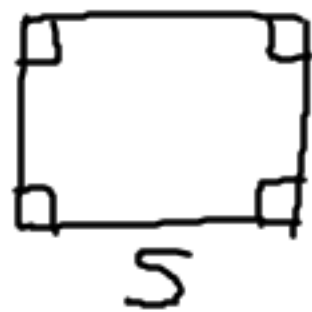
$$AD = 5 \quad m\angle A = 90^\circ$$
$$AB = 8 \quad m\angle B = 90^\circ$$

Rhombus Corollary: If a quadrilateral has 4  $\cong$  sides it is a rhombus.

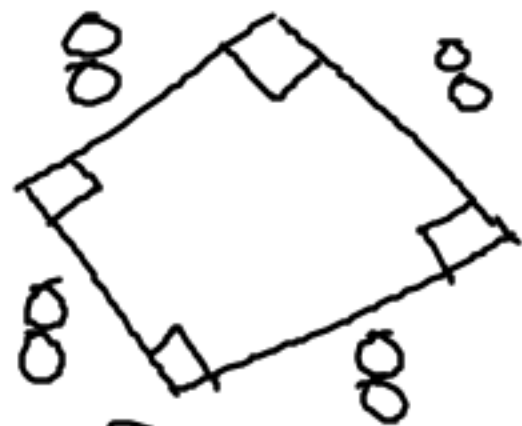
Rectangle Cor. If a quad. has 4 right  $\angle$ s then it is a rectangle.

Square Cor. If a quad. has 4  $\cong$  sides & 4 right  $\angle$ s then it is a square.

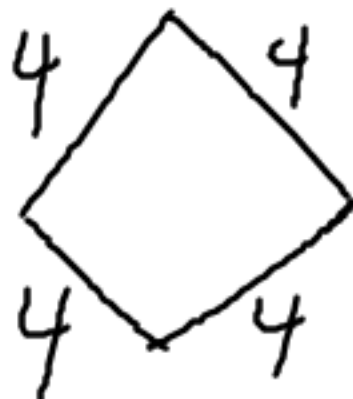
Ex. Classify



Rectangle

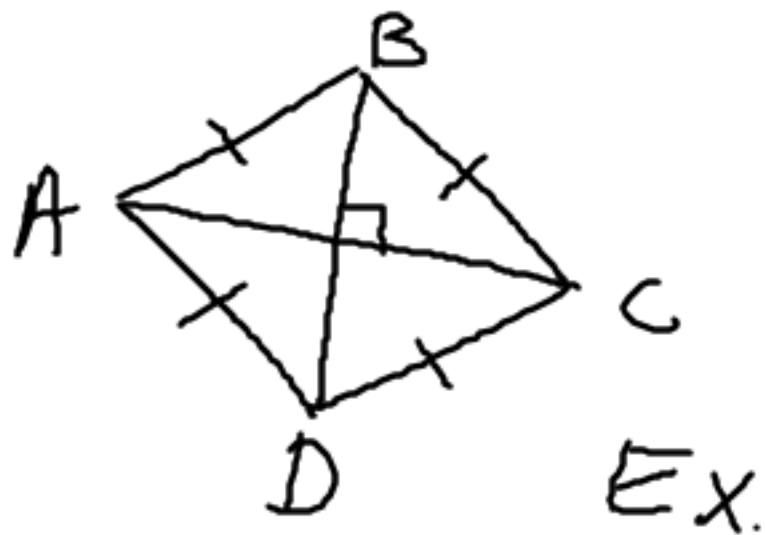


Square

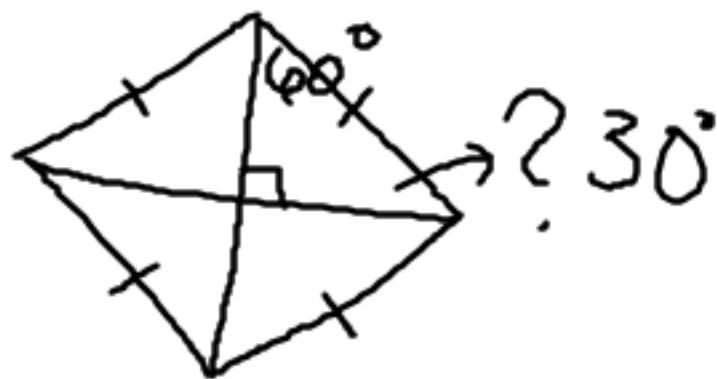


Rhombus

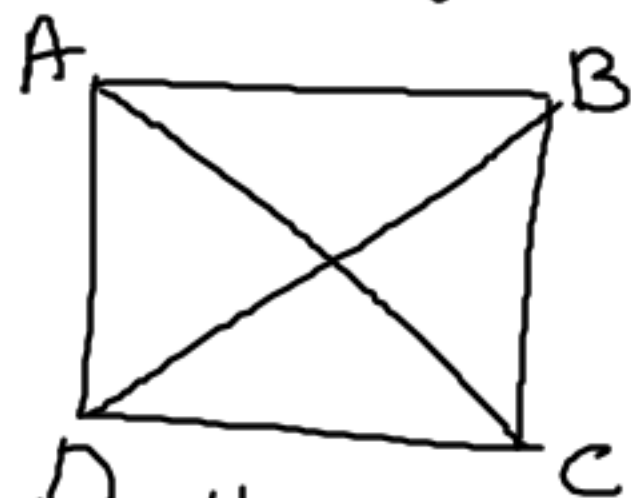
TH 6.10: The diagonals of a rhombus are  $\perp$ .



$$AC \perp BD$$

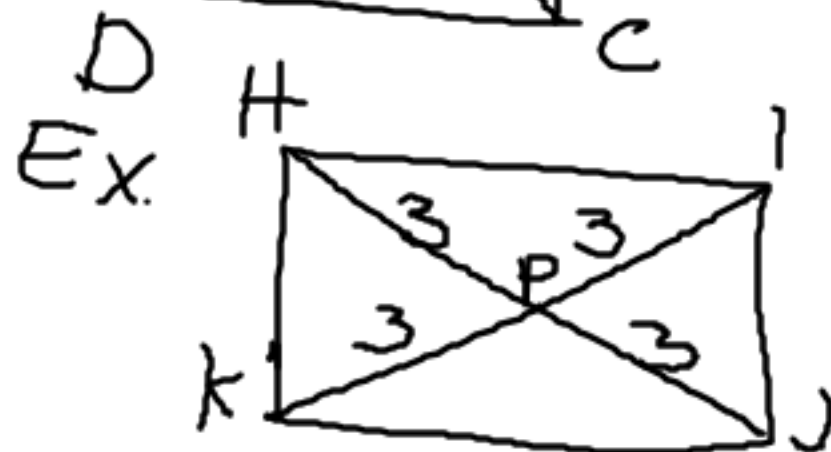


TH. 6.11: The diagonals in a rectangle are  $\cong$ .



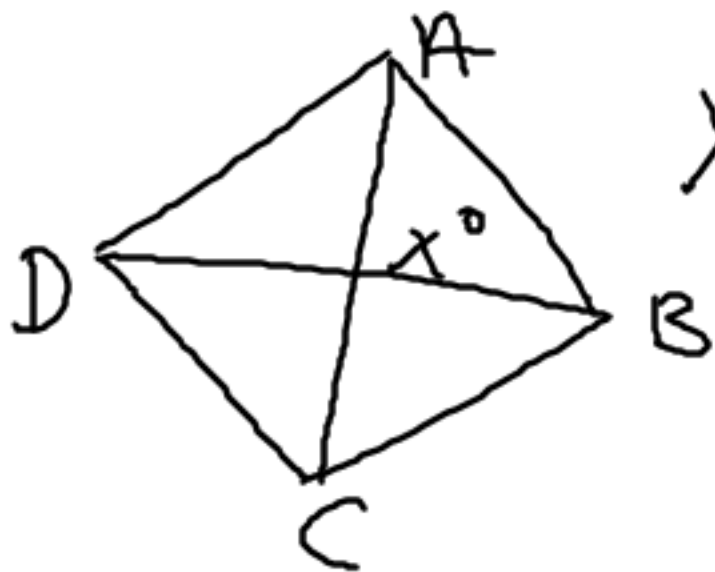
$\square ABCD$

$$\overline{AC} \cong \overline{BD}.$$



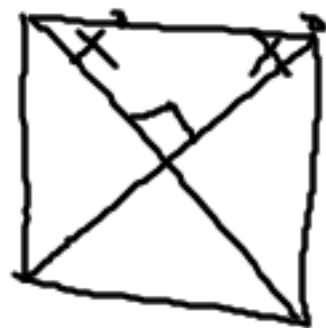
Ex.

Rhombus ABCD



$$x = 90$$

Square



$$x = 45^\circ$$